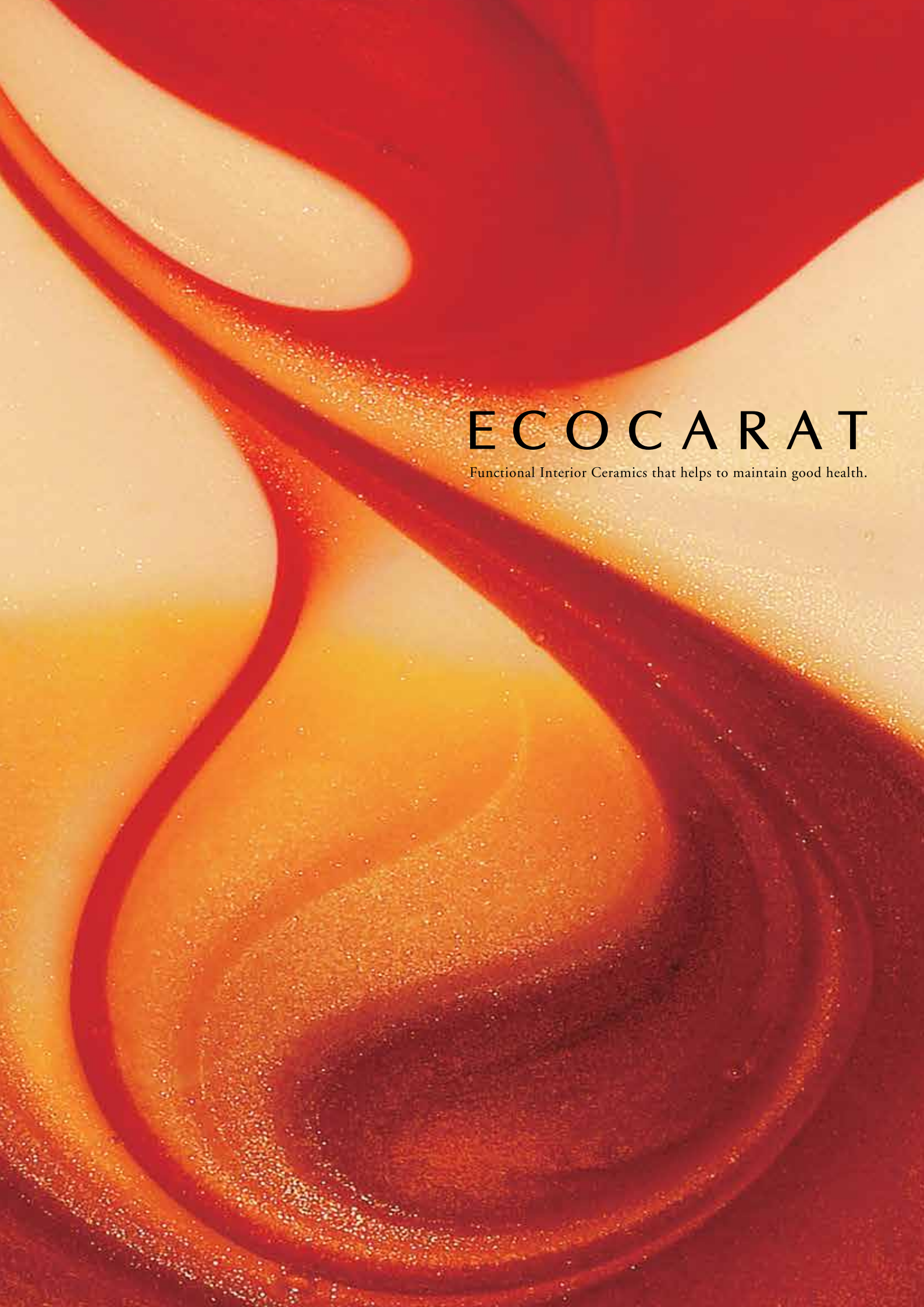
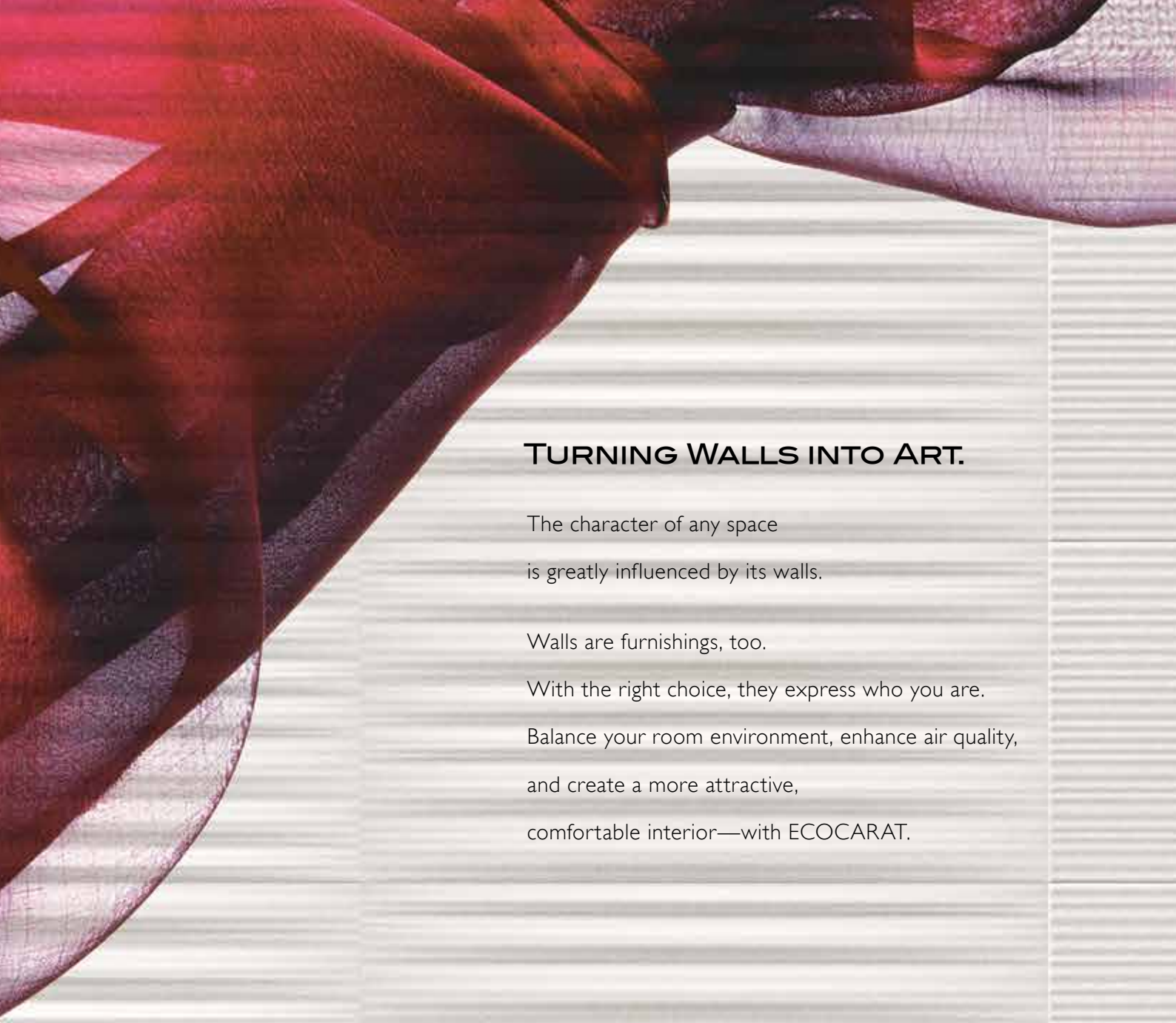

ECOCARAT
Functional Interior Ceramics that helps to maintain good health.



Turning Walls into Art.

The character of any space
is greatly influenced by its walls.

Walls are furnishings, too.
With the right choice, they express who you are.
Balance your room environment, enhance air quality,
and create a more attractive,
comfortable interior—with ECOCARAT.

CONTENTS

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ECOCARAT LINE UP 16
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CERTIFICATION 49
APPLICATION INFOMATION 50
MAINTENANCE OF ECOCARAT 51

ECOCARAT
DESIGNS

BEDROOM

WALL: GRANAS LUDRA P.21
ECO-2515NET/LDR4

BEDROOM

WALL: GRANAS RAXA P.20
ECO-315/RAX3
ECO-315/RAX3A

BEDROOM

WALL: PETRASQUARE P. 23
ECO-60NET/PTS1

LIVING ROOM

WALL: CUSCINO P.29
ECO-151/CSN2
TAKEHIGO P.34
ECO-303/TK2

LIVING ROOM

WALL: GRANAS LUDRA P. 21
ECO-2515NET/LDR2

LIVING ROOM

WALL: VELE P.26
ECO-30NET/WE1

LIVING ROOM

WALL: PEARL MASK P.22
ECO-60NET/PMK1

LIVING ROOM

WALL: BRICK P.33
ECO-250/B5

DINING ROOM

WALL: SNOWJE P.27
ECO-30NET/SNJ1
SILKLINE P.36
ECO-303/SLA1

BATHROOM

WALL: CUSCINO P.29
ECO-151/CSN2

BATHROOM

WALL: SPLINE P.35
ECO-303/SPN4

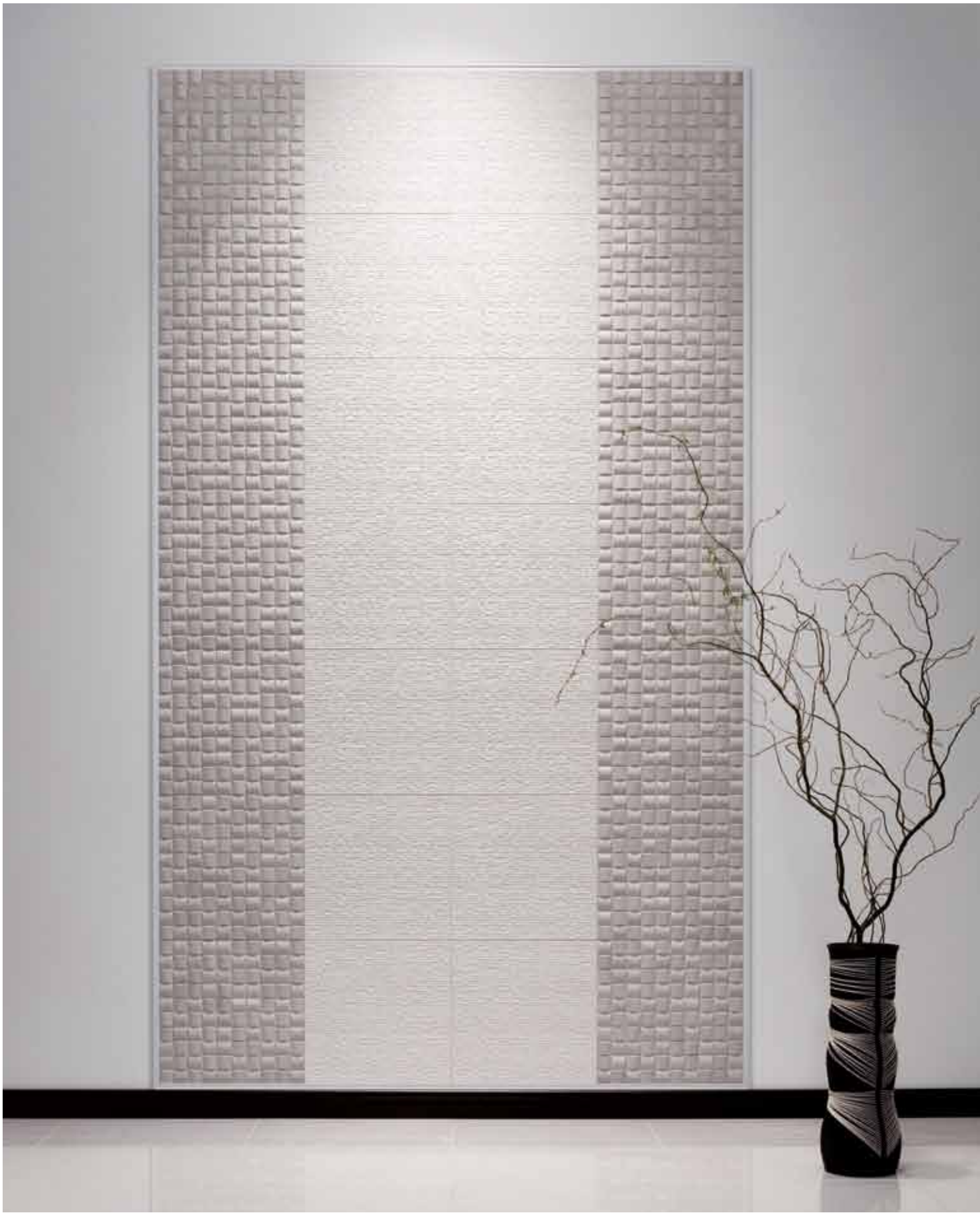
CAUTION ECOCARAT should never be used in areas that come into direct contact with water.

ENTRANCE

WALL: GRANAS RAXA P. 20
ECO-315/RAX3
VELE P. 26
ECO-30NET/WE1

ENTRANCE

WALL: VELE P. 26
ECO-30NET/WE2



ECOCARAT LINE UP

ECOCARAT is designed specifically to make exquisite interior walls. Made of natural raw materials, ECOCARAT has natural warmth and delicate, quiet shades of color.

ECOCARAT, whose distinctive properties are not found anywhere else, helps to create an attractive new space one rank higher.

new
GRANAS LINE
▸P.18

GRANAS VISTO
▸P.19

GRANAS RAXA
▸P.20

GRANAS LUDRA
▸P.21

PEARL MASK
▸P.22

PETRASQUARE
▸P.23

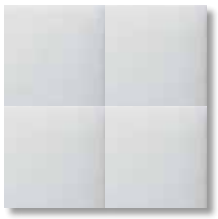
new
LAND
- EARTH FINISH
▸P.24

LAND
- STONE FINISH
▸P.25

VELE
▸P.26

SNOWJE
▸P.27

CASSÉ
▸P.28



CUSCINO
▸P.29

ROCK*
▸P.30

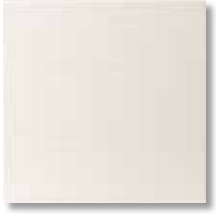
STONE*
▸P.31

QUARTZ STONE*
▸P.32

BRICK*
▸P.33

TAKEHIGO
▸P.34

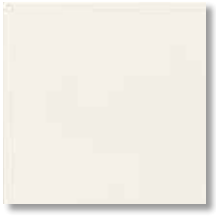
SPLINE
▸P.35



SILKLINE
▸P.36

NEW JURAKU
▸P.36

FINE BASE
NEW NATURAL
▸P.37



FINE BASE
SIMPLE
▸P.37

* This model will be discontinued on January 31, 2014 and a newly redesigned model will be launched in February 2014.

GRANAS LINE new

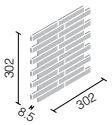
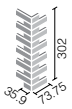
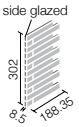
ECO-2515NET/GLN2

ECO-2515NET/GLN1 (White) (SP1)*

ECO-2515NET/GLN2 (Beige) (GLN2)*

ECO-2515NET/GLN3 (Brown) (GLN3)*

ECO-2515NET/GLN4 (Dark Gray) (LDR)*

■ 302 x 302mm (net mounted)	90° angle (net mounted)	for narrow edges (net mounted)
		
ECO-2515NET/ GLN1 ~ GLN4	ECO-2515N/90-14/ GLN1 ~ GLN4	ECO-2515N1/ GLN1 ~ GLN4
11.3shs./m² 11shs./ctn.	3.4shs./m 4shs./ctn.	3.4shs./m 4shs./ctn.

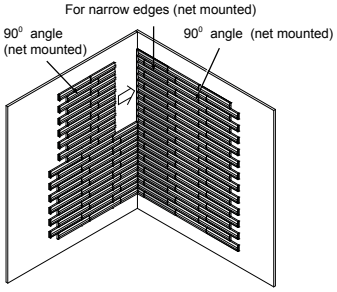
＊Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

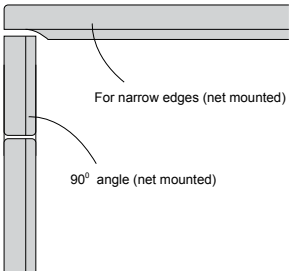
※ Specified joint dimension between sheet are 1.0mm both vertically and horizontally.
※ 90° angle internal dimension are (65.25+27.4) x 24.25mm.
※ Wider color variation than other series is a characteristic of this series.

■ Example of wall corner mounting

ECO-2515NET/GLN1
ECO-2515N/90-14/GLN1

■ Example of wall internal angle

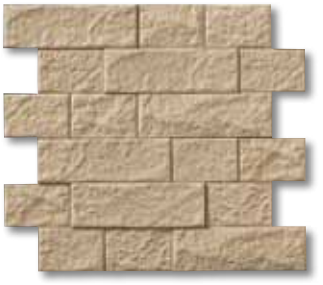




GRANAS VISTO

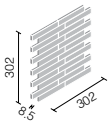
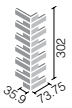
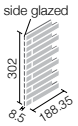
ECO-R/VIT1

ECO-R/VIT1 (White) (VIT1)*



ECO-R/VIT2 (Beige) (VIT2)*

ECO-R/VIT3 (Brown) (VIT3)*

■ 302 x 302mm (net mounted)	90° angle (net mounted)	for narrow edges (net mounted)
		
ECO-R/VIT1 ~ VIT3	ECO-R/90-14/ VIT1 ~ VIT3	ECO-C/VIT1 ~ VIT3
11.3shs./m² 11shs./ctn.	3.4shs./m 4shs./ctn.	3.4shs./m 4shs./ctn.

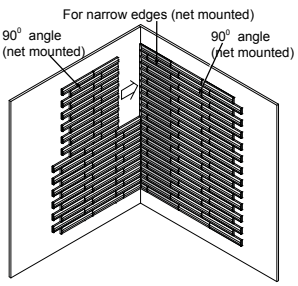
＊ Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※ Specified joint dimension between sheet are 1.0mm both vertically and horizontally.
※ 90° angle internal dimension are (29.35+67.25) x 49.5mm.
※ As side edges is not decorated, color will be different from the color of the surface. Place confirm the color of original sample.
※ VIT1 has white as its base color so avoid staining after installation as stains may appear conspicuous.

■ Example of wall corner mounting

ECO-R/VIT1
ECO-C/90-14/VIT1

■ Example of wall internal angle



GRANAS RAXA

ECO-315/RAX3, RAX3A

ECO-315/RAX1 (White) (SP1)*

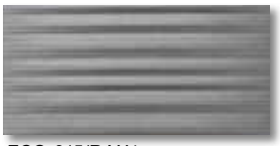
ECO-315/RAX1A (White) (SP1}*

ECO-315/RAX2 (Beige) (SNJ2)*

ECO-315/RAX2A (Beige) (SNJ2}*

ECO-315/RAX3 (Brown) (RAX3)*

ECO-315/RAX3A (Brown) (RAX3}*



ECO-315/RAX4 (Dark Gray) (RAX4}*

ECO-315/RAX4A (Dark Gray) (RAX4)*

■303×151mm (relief)	■303×151mm (flat)
ECO-315/ RAX1~RAX4	ECO-315/ RAX1A~RAX4A
22.6shts./m² 22shts./ctn.	22.6shts./m² 28shts./ctn.

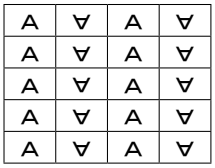
*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※ The relief pattern has a designated orientation. Please refer to example layout.
※ Thickness varies depending on cutting point.
※ In the case of wall corner mounting, please use 303×151mm(flat).

■303×151mm (relief)

The relief pattern has a designated orientation.

■Example layout



As seen in the illustration, put on by roating.

■Example of wall corner mounting

ECO-315/RAX3, RAX3A

■Example of wall internal angle

ECO-315/RAX3, RAX3A

GRANAS LUDRA

ECO-2515NET/LDR1

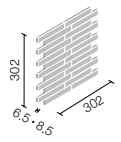
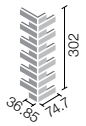
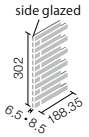
ECO-2515NET/LDR1 (Gray) (LDR1)*

ECO-2515NET/LDR2 (Dark Gray) (LDR2)*

ECO-2515NET/LDR3 (Brown) (LDR3)*

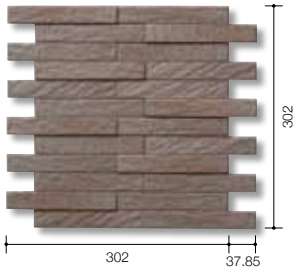
ECO-2515NET/LDR4 (White) (SP1)*

ECO-2515NET/LDR5 (Beige) (SNJ2)*

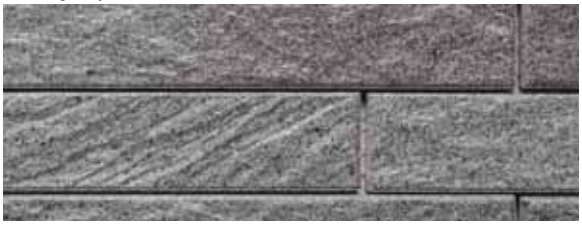
■ 302×302mm (net mounted)	90° angle (net mounted)	for narrow edges (net mounted)
		
ECO-2515NET/LDR1~ LDR5	ECO-2515N/90-14/ LDR1 ~ LDR5	ECO-2515N1/ LDR1 ~ LDR5
11.3shts./㎡ 11shts./ctn.	3.4shts./m 4shts./ctn.	3.4shts./m 4shts./ctn.

＊Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※Specified joint dimension between sheets are 1.0mm both vertically and horizontally.
※90° angle internal dimensions are (65.0+27.5) ×24.25mm, regardless of thickness.
※Filler parts align elements of the same thickness, thus reducing surface unevenness around power outlets; however due to patterning the surface will not be totally flat.
※It has wider color and many inequality faces to express natural taste.



■Enlarge of joints



※For a better design effect, there are slight gaps between ECOCARAT pieces so the net-backing and lines of applied adhesive may become visible.

■Example of wall corner mounting

ECO-2515N/90-14/LDR2,
ECO-2515NET/LDR2

PEARL MASK

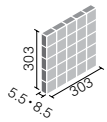
ECO-60NET/PMK1

ECO-60NET/PMK1 (White Pearl) (PMK1)*

ECO-60NET/PMK2 (Pink Pearl) (N4)*

■Close-up of the surface

ECO-60NET/PMK1

■ 303×303mm (net mounted)	90°angle (net mounted)	filler parts □(net mounted)
		
ECO-60NET/ PMK1 ~ PMK2	ECO-60N/90-14/ PMK1 ~ PMK2	ECO-60N1/ PMK1 ~ PMK2
11.3shts./m² 11shts./ctn.	3.4shts./m 11shts./ctn.	3.4shts./m 4shts./ctn.

＊ Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※ Wider color variation than other series and many inequality faces is a characteristic of this series.
※ As side edge is not decorated, color will be different from the color of the surface. Please confirm the color of original sample.
※ Filler parts align elements of the same thickness, thus reducing surface unevenness around power outlets; however due to patterning the surface will not be totally flat.
※ 90°angle internal dimensions are (55.1+55.1) ×60.6mm, regardless of thickness.

■Example of wall corner mounting

ECO-60NET/PMK2
ECO-60N/90-14/PMK2

■Example of wall internal angle

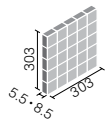
ECO-60NET/PMK2
ECO-60N1/PMK2

PETRASQUARE

ECO-60NET/PTS1, ECO-303/F1

ECO-60NET/PTS1 (Light Gray) (RO1)*

ECO-60NET/PTS2 (Light Beige) (N2)*

■ 303×303mm (net mounted)	90° angle (net mounted)	filler parts (net mounted)
		
ECO-60NET/ PTS1 ~ PTS2	ECO-60N/90-14/ PTS1 ~ PTS2	ECO-60N1/ PTS1 ~ PTS2
11.3shts./m² 11shts./ctn.	3.4shts./m 11shts./ctn.	3.4shts./m 4shts./ctn.

* Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※ It has wider color and many inequality faces to express natural taste.
※ Filler parts align elements of the same thickness, thus reducing surface unevenness around power outlets; however due to patterning the surface will not be totally flat.
※ 90° angle internal dimensions are (55.1+55.1) ×60.6mm, regardless of thickness.
※ As side edge is not decorated, color will be different from the color of the surface. Please confirm the color of original sample.

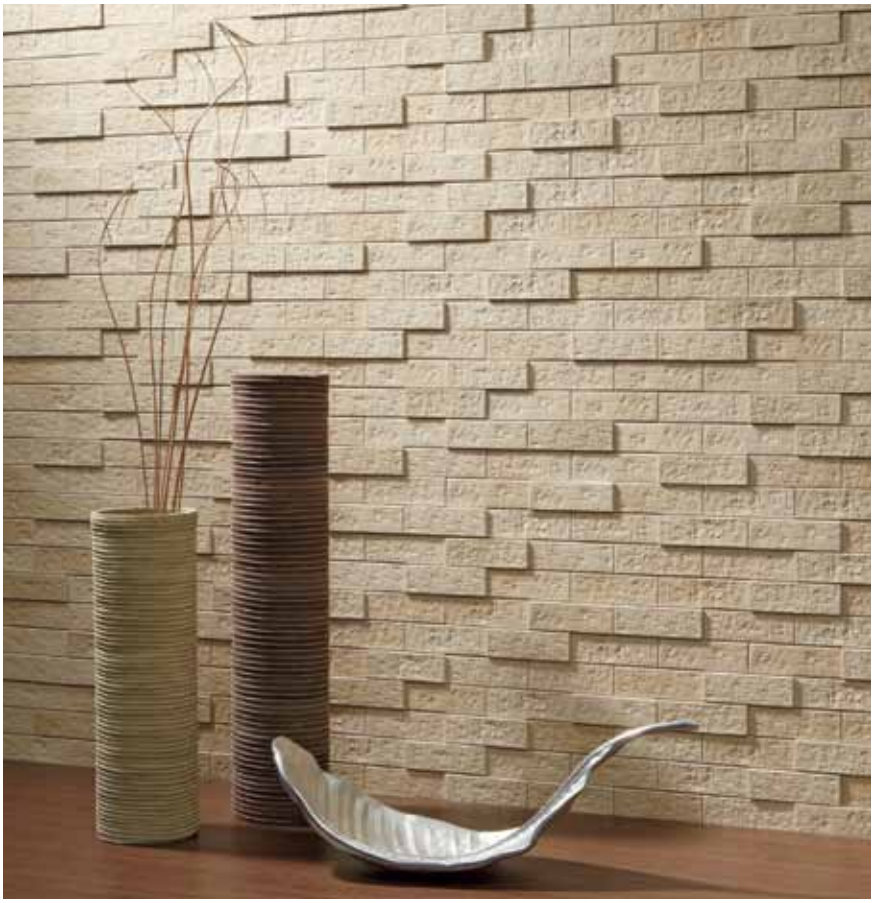
■Example of wall corner mounting

ECO-60NET/PTS2
ECO-60N/90-14/PTS2

■Example of wall internal angle

ECO-60NET/PTS2
ECO-60N1/PTS2

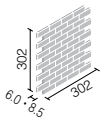
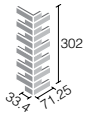
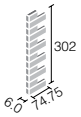
LAND -EARTH FINISH- new

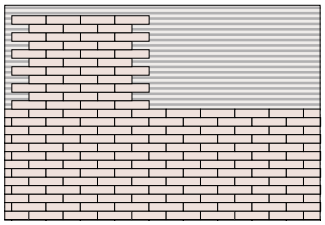


ECO-275NET/PLD2

ECO-275NET/PLD1 (Ivory) (SP1)*

ECO-275NET/PLD2 (Beige) (H4)*

■ 302 x 302mm (net mounted)	90° angle (net mounted)	for narrow (net mounted)
		
ECO-275NET/ PLD1 ~ PLD	ECO-275N/90-14/ PLD1 ~ PLD2	ECO-275N1/ PLD1 ~ PLD2
11.3shs./m² 11shs./ctn.	3.4shs./m 4shs./ctn.	3.4shs./m 4shs./ctn.



To install PRECIOUS MOSAIC ROSCHE, apply adhesive to the prepared wall surface then comb the adhesive surface horizontally. The thickness of individual ECOCARAT pieces differs, so immediately after installation apply pressure to each individual piece to ensure they all adhere uniformly to the adhesive.

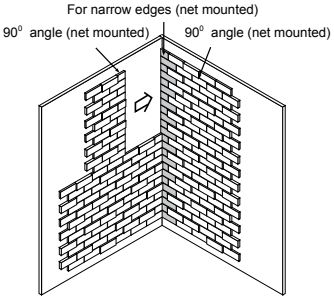
＊ Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※PLD1 has white as its base color so avoid staining during installation.
※90° angle internal dimension are (65.25+ 27.4) x 24.25mm, regardless of thickness.
※Specified joint dimension between sheets are 1.0mm both vertically and horizontally.
※There are slight gaps about 1.0mm between ECOCARAT pieces.
※It has wider color and many inequality faces to express natural taste.

■Example of wall corner mounting

ECO-275NET/PLD2
ECO-275N/90-14/PLD2

■Finish of internal angle

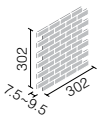


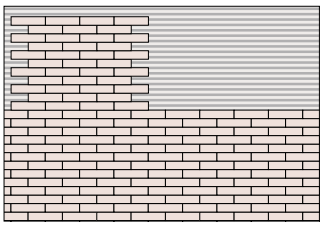
LAND -STONE FINISH-

ECO-275NET/RO1

ECO-275NET/RO1 (Ivory) (RO1)*

ECO-275NET/RO2 (Beige) (N2)*

■ 302×302mm (net mounted)	90°angle (net mounted)	for narrow edges (net mounted)
		
ECO-275NET/ RO1 ~ RO2	ECO-275N/90-14/ RO1 ~ RO2	ECO-275N1/RO1 ~ RO2
11.3shts./m² 11shts./ctn.	3.4shts./m 4shts./ctn.	3.4shts./m 4shts./ctn.



To install PRECIOUS MOSAIC ROSCHE, apply adhesive to the prepared wall surface then comb the adhesive surface horizontally. The thickness of individual ECOCARAT pieces differs, so immediately after installation apply pressure to each individual piece to ensure they all adhere uniformly to the adhesive.

＊Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※Wider color variation than other series is a characteristic of this series.
※RO1 has white as its base color so avoid staining during installation.
※90° angle internal dimensions are (65.0+27.5) ×24.25mm, regardless of thickness.
※Specified joint dimension between sheets are 1.0mm both vertically and horizontally.
※There are slight gaps about 1.0mm between ECOCARAT pieces.

ECO-275NET/RO1, RO2

■Enlarge of joints

※For a better design effect, there are slight gaps between ECOCARAT pieces so the net-backing and lines of applied adhesive may become visible.

VELE

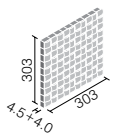
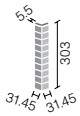
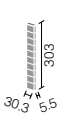
ECO-30NET/WE1

ECO-30NET/WE1 (White) (SP1)*

ECO-30NET/WE2 (Ivory) (RO1)*

ECO-30NET/WE3 (Beige) (N2)*

ECO-30NET/WE4 (Gray) (TK3)*

■ 303×303mm (net mounted)	90°angle (net mounted)	filler parts (net mounted)
		
ECO-30NET/ WE1 ~ WE4	ECO-30N/90-14/ WE1 ~ WE4	ECO-30N1/ WE1 ~ WE4
11.3shts./m² 11shts./ctn.	3.4shts./m 11shts./ctn.	3.4shts./m 4shts./ctn.

* Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※ WE1 and WE2 have white as their base color so avoid staining after installation as stains may appear conspicuous.
※ Elements are aligned randomly, however there may be cases where the direction of elements align.
※ 90° angle inside dimensions are (25.95+25.95) ×30.3mm
※ The surface of 90°angle, unlike the 303×303mm net-mounted products,is flat.
※ Due to surface differences between 303×303mm net-mounted products and 90° angle, colors may appear differently depending on the lighting.
※ Filler parts align elements thus reducing surface unevenness around power outlets.

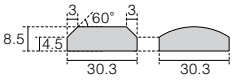
■Example of wall corner mounting

ECO-30NET/WE3
ECO-30N/90-14/WE3

■Example of wall internal angle

ECO-30NET/ WE3
ECO-30N1/WE3

■Cross-section of one element



SNOWJE

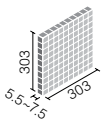
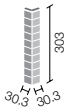
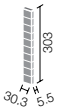
ECO-30NET/SNJ1

ECO-30NET/SNJ1 (White) (SP1)*

ECO-30NET/SNJ2 (Beige) (SNJ2)*

ECO-30NET/SNJ3 (Pink Beige) (H1)*

ECO-30NET/SNJ4 (Gray Beige) (QS2)*

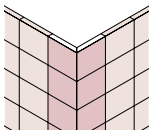
■ 303×303mm (net mounted)	90°angle (net mounted)	filler parts (net mounted)
		
ECO-30NET/ SNJ1 ~ SNJ4	ECO-30N/90-14/ SNJ1 ~ SNJ4	ECO-30N1/ SNJ1 ~ SNJ4
11.3shts./m² 11shts./ctn.	3.4shts./m 11shts./ctn.	3.4shts./m 4shts./ctn.

＊ Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※ Filler parts align elements of the same thickness, thus reducing surface unevenness around power outlets; however due to patterning the surface will not be totally flat.
※ 90° angle internal dimensions are (24.8+24.8) ×30.3mm, regardless of thickness.
※ Wider color variation than other series is a characteristic of this series.

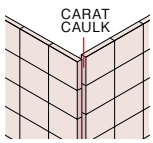
■Finish of external angle

1. External angle parts



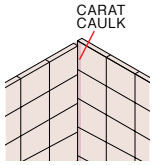
※Using 90° angle (ECO-30N/90-14/SNJ1～SNJ4)

2. CARAT CAULK



※Using CARAT CAULK

■Finish of internal angle



■Example of wall internal angle

ECO-30NET

ECO-30N1

※Using ECO-30N1 around power outlets will give a more beautiful finish. The photograph shows an inside corner before application of CARAT CAULK. Please use CARAT CAULK to finish corners.

CASSÉ

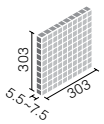
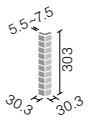
ECO-30NET/M1

ECO-30NET/M1 (Ivory Beige) (A1)*

ECO-30NET/M2 (Beige) (N2)*

ECO-30NET/M3 (Light Green) (M3)*

ECO-30NET/M4 (Cotto Beige) (N8)*

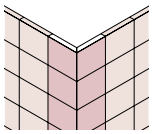
■ 303×303mm (net mounted)	90° angle (net mounted)	filler parts (net mounted)
		
ECO-30NET/ M1～M4	ECO-30N/90-14/ M1～M4	ECO-30N1/M1～M4
11.3shts./m² 11shts./ctn.	3.4shts./m 11shts./ctn.	3.4shts./m 4shts./ctn.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※Filler parts align elements of the same thickness, thus reducing surface unevenness around power outlets; however due to patterning the surface will not be totally flat.
※90°angle internal dimensions are (24.3+24.3)×30.3mm, regardless of thickness.
※Wider color variation than other series is a characteristic of this series.

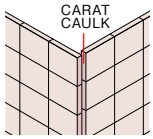
■Finish of external angle

1. External angle parts



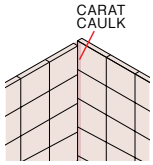
※Using 90° angle (ECO-30N/90-14/M1～M4)

2. CARAT CAULK



※Using CARAT CAULK

■Finish of internal angle



■Example of wall internal angle

ECO-30NET

ECO-30N1

※Using ECO-30N1 around power outlets will give a more beautiful finish. The photograph shows an inside corner before application of CARAT CAULK. Please use CARAT CAULK to finish corners.

CUSCINO

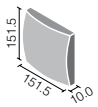
ECO-151/CSN1, ECO-303/SLA1

ECO-151/CSN1 (White) (SP1)*

ECO-151/CSN2 (Beige) (SNJ2)*

ECO-151/CSN3 (Gray) (SLA3)*

■ 151×151mm



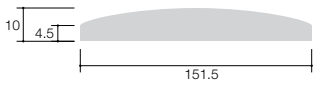
ECO-151/
CSN1～CSN3

45.2pcs./㎡ 30pcs./ctn.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※CSN1 has white as its base color so avoid staining after installation as stains may appear conspicuous.
※Thickness varies depending on cutting point.
※90° angle is nothing.

■Cross section



■Example of wall internal angle
Using decorative mold material

ECO-151/CSN1

ROCK

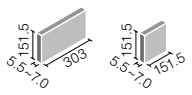
To be discontinued on January 31, 2014.

ECO-SET2/RR1

ECO-SET2/RR1 (White Beige) (RO1)*

ECO-SET2/RR2 (Gray Beige) (RR2)*

ECO-SET2/RR3 (Sand Beige) (H4)*

■ Different shape set	■ 303×151mm	■ 151×151mm
		
ECO-SET2/ RR1 ~ RR3	ECO-315/ RR1 ~ RR3	ECO-151/ RR1 ~ RR3
1.4set/m² 2set/ctn.	22.6pcs./m² 22pcs/ctn.	45.2pcs./m² 40pcs/ctn.

＊ Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

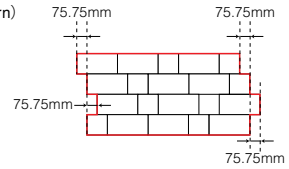
※ Wider color variation than other series is a characteristic of this series.
※ RR1 has white as its base color so avoid staining after installation as stains could become conspicuous.
※ This model will be discontinued on January 31, 2014 and a newly redesigned model will be launched in February 2014.

■Regarding differing shape set

(Set contents)

・1 case contains 2 sets
・1 set contains 303×151mm tiles×12, and 151×151mm tiles×8

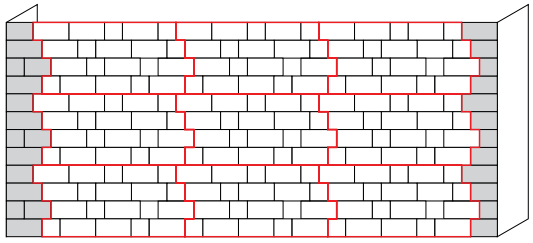
(1 set – basic pattern)



・As shown in the basic pattern illustration, please offset alternate rows by 75.5mm （1/2 width of the 151×151mm tiles）.
・When installed in the basic pattern, edges will align, but a simple design pattern of 1 piece of 151×151mm then 2 pieces of 303×151mm, followed by 1 piece of 151×151mm and then 1 piece of 303×151mm will form a repeating pattern.

〈Example Layout〉

・As seen in the illustration, the layout is achieved by repeating the basic set pattern.

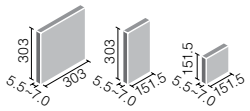
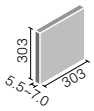


To be discontinued on January 31, 2014.

ECO-SET/ST1

ECO-SET/ST1 (Yellowish Brown) (H4)*

ECO-SET/ST2 (Reddish Brown) (J4)*

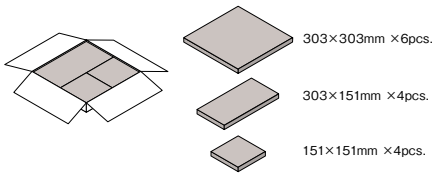
■ Different shape set	■ 303×303mm	■ 303×151mm	■ 151×151mm
			
ECO-SET/ST1 ~ ST2	ECO-303/ST1 ~ ST2	ECO-315/ST1 ~ ST2	ECO-151/ST1 ~ ST2
1.3set/m² 1set/ctn.	11.3pcs./m² 11pcs./ctn.	22.6pcs./m² 22pcs./ctn	45.2pcs./m² 40pcs./ctn

＊ Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

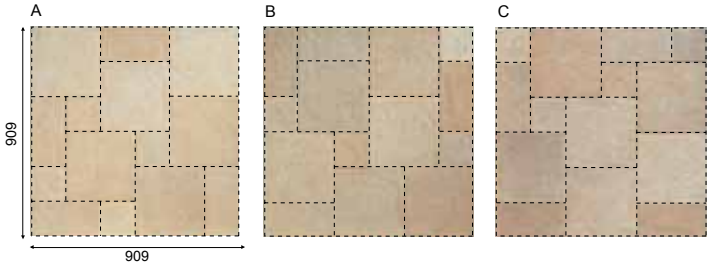
※ Wider color variation than other series is a characteristic of this series.
※ This model will be discontinued on January 31, 2014 and a newly redesigned model will be launched in February 2014.

■Regarding differing shape set

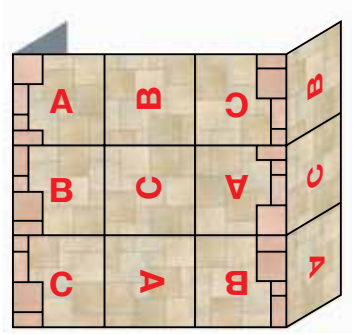
(Set contents)
・One 909×909mm unit set is packaged in each case.



(Basic pattern of 1 set (=909×909mm unit))
・Using the ECOCARAT tiles in one case, the basic patterns shown in figures A to C can be constructed.



(Example Layout)
・As seen in the illustration below, by rotating and combining the basic patterns a more natural stone arrangement is possible.



QUARTZ STONE

To be discontinued on January 31, 2014.

ECO-345/QS1, ECO-60NET/PTS1

ECO-303/QS1 (White) (RO1)*

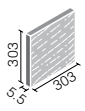
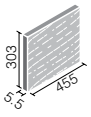
ECO-345/QS1 (White) (RO1)*

ECO-303/QS2 (Beige) (QS2)*

ECO-345/QS2 (Beige) (QS2)*

ECO-303/QS3 (Light Brown) (N4)*

ECO-345/QS3 (Light Brown) (N4)*

■ 303×303mm	■ 303×455mm
	
ECO-303/ QS1 ~ QS3	ECO-345/ QS1 ~ QS3
11.3pcs./m² 22pcs./ctn.	7.5pcs./m² 10pcs./ctn.

* Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※ Wider color variation than other series is a characteristic of this series.
※ QS1 has white as its base color so avoid staining after installation as stains could become conspicuous.
※ Surfaces and patterns have a designated orientation. It is recommended that they are installed so that the pattern flows upwards and to the right.
※ This model will be discontinued on January 31, 2014 and a newly redesigned model will be launched in February 2014.

BRICK To be discontinued on January 31, 2014.

ECO-250/B4

ECO-250/B1 (Cream Beige) (N5)*

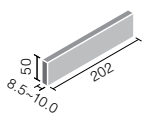
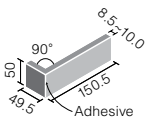
ECO-250/B2 (Beige) (H3)*

ECO-250/B3 (Cotto Orange) (B3)*

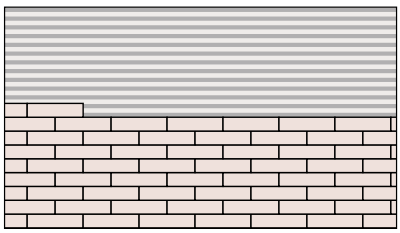
ECO-250/B4 (Brick Red) (B4)*

ECO-250/B5 (Dark Brown) (B5)*

※To express the natural feel of brick, this product has a certain amount of thickness variation and a wave pattern has been applied to its shape. Due to these design features, there are spaces between bricks so lines of applied adhesive may become visible.

■ 202×50mm	angle
	
ECO-250/B1 ~ B5	ECO-2501/B1 ~ B5
103pcs./m² 100pcs./ctn.	20.5pcs./m 60pcs./ctn.

Due to the design, there are spaces between bricks, however applying adhesive in lines parallel to the long-side of the bricks will make adhesive less visible.



＊Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※Wider color variation than other series is a characteristic of this series.
※The surface of the product is covered with sand-like particles. Rubbing of the surface may cause particles to fall off.
※The inside dimensions of the angle are (140.5+39.5) ×50mm. However, as the thickness variation is 8.5 to 10mm, outside dimensions are not always the same. Here the maximum dimensions are shown.
※This model will be discontinued on January 31, 2014 and a newly redesigned model will be launched in February 2014.

TAKEHIGO

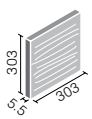
ECO-303/TK1 ~ TK3

ECO-303/TK1 (White) (SP1)*

ECO-303/TK2 (Light Beige) (N1)*

ECO-303/TK3 (Gray) (TK3)*

■ 303×303mm



ECO-303/
TK1 ~ TK3

11.3pcs./m² 22pcs./ctn.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※Suitable for ceiling installation (excluding kitchen and bath).
※TK1 has white as its base color so avoid staining after installation as stains may appear conspicuous.

■Close-up of the surface

ECO-303/TK1

SPLINE

ECO-303/SPN4

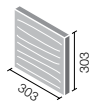
ECO-303/SPN1 (White) (SP1)*

ECO-303/SPN2 (Beige) (SNJ2)*

ECO-303/SPN3 (Light Rose) (J4)*

ECO-303/SPN4 (Light Green) (SPN4)*

■ 303×303mm



ECO-303/
SPN1 ~ SPN4

11.3pcs./m² 22pcs./ctn.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※Suitable for ceiling installation (excluding kitchen and bath).
※SPN1 has white as its base color so avoid staining after installation as stains may appear conspicuous.
※The relief pattern has a designated orientation so the design will look different when installed vertically and horizontally. Before installation, please examine actual tiles and consider which orientation to use.
※Vertical installation, in line with the relief pattern, is recommended.

■Combination of vertical and horizontal installation

ECO-303/SPN4

SILKLINE

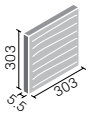
ECO-303/SLA2

ECO-303/SLA1 (White) (SP1)*

ECO-303/SLA2 (Beige) (N2)*

ECO-303/SLA3 (Gray) (SLA3)*

■ 303×303mm



ECO-303/
SLA1 ~ SLA3

11.3pcs./m² 22pcs./ctn.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※Suitable for ceiling installation (excluding kitchen and bath).
※SLA1 has white as its base color so avoid staining after installation as stains may appear conspicuous.
※The design pattern has a designated orientation so the design will look different when installed vertically and horizontally. Before installation, please examine an actual tile and consider which direction to use.
※Horizontal installation, in line with the relief pattern is recommended.

NEW JURAKU

ECO-303/NJ3

NJ1 (Sand Beige) (J1)*

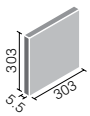
NJ3 (Olive Gray) (J3)*

NJ6 (Golden Brown) (J6)*

NJ8 (Charcoal Brown) (J8)*

NJ9 (Snow White) (J9)*

■ 303×303mm

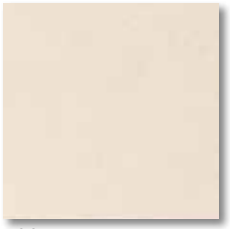


ECO-303/
NJ1…NJ9

11.3pcs./m² 22pcs./ctn.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

FINE BASE NEW NATURAL

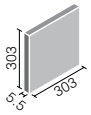


ECO-303/NN1 (Off-White) (N1)*

ECO-303/NN2 (Beige) (N2)*

ECO-303/NN3 (Moss Gray) (N3)*

■ 303×303mm

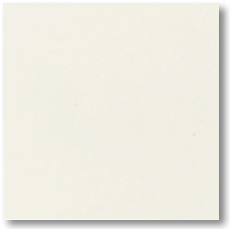


ECO-303/
NN1…NN6

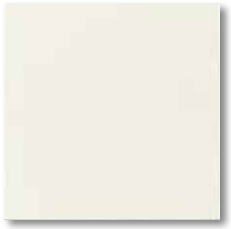
11.3pcs./m² 22pcs./ctn.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

FINE BASE SIMPLE

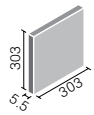


ECO-303/F1 (Plain) (SP1)*



ECO-303/R1 (Rib) (SP1)*

■ 303×303mm



ECO-303/
F1, R1

11.3pcs./m² 22pcs./ctn.

■Close-up of the surface

F1 (Plain) Enlarged view
The speckled pattern may vary.

R1 (Rib) Enlarged view
Ribbed pattern formed by thin lines. Can be applied either vertically or horizontally.

*Codes in parentheses following the product color code show the color code and name of the CARAT CAULK that should be used.

※F1 and R1 have white as its base color so avoid staining after installation as stains may appear conspicuous.

PUBLIC SPACES

BEAUTY AND MASSAGE SALON

Ambassador Hotel

Customer: Sofitel Ambassador Seoul
(Seoul, Korea)

Beautiful, refreshing air creates health and beauty

Voice of the customer

The Balneo Therapy Center is a beauty and massage salon in the basement level of Sofitel Ambassador Seoul that provides hydrotherapy treatments.
As our customers wear swimsuits, humidity and odor in the facility is always a concern.
After renovation, we noticed an improvement in the quality of the air that got many positive comments. We are very pleased with the humidity-controlling ability of ECOCARAT.

ECO-345/QS3

ECO-60NET/PTS2

ECO-SET2/RR3

ECO-60NET/PMK2

CLINIC

Ijihamu Skin Clinic

Customer: Ijihamu clinic (Seoul, Korea)

To decorate the entrance with a focus on health and comfort.

Voice of the customer

We have patients whose symptoms of allergies or skin problems worsen with minor smells or chemical substances in the air.
We are very satisfied with the results of ECOCARAT and it has proven effective in reducing these problems.

ECO-345/QS1
ECO-275NET/RO1

※Voice of the customer is an impression by the monitor. There is an individual variation in how to feel it.

CLINIC

ANG Clinic

Customer: ANG Clinic(Seoul, Korea)

ECOCARAT lends the atmosphere of a luxury salon to medical facilities.

ANG Clinic caters to women who care about beauty. ECOCARAT transformed the clinic's interior, creating a soothing atmosphere that has won high praise from its affluent clients.

ECO-60NET/PTS1

ECO-SET2/RR1

SHOPPING MALL

I' Park Mall

Customer: I' Park Mall (Seoul, Korea)

ECOCARAT creates clean environments for kids.

Voice of the customer

ECOCARAT is not only beautiful but also makes customer comfortable for its functions. Deciding to install ECOCARAT when changing sales floor to baby's room for female customers' comfort was a great idea.

ECO-30NET/WE2

ECO-60NET/PTS1

ECO-60NET/PTS1

※Voice of the customer is an impression by the monitor. There is an individual variation in how to feel it.

KINDERGARTEN

Sana Gouchi Kindergarten

Customer: Tachi Kenchiku Sekkei Jimusho
(Myodo District, Pref. Tokushima)

Putting the health of the children first.

Voice of the customer

We have created a recognized and appreciated use of ECOCARAT's humidity control and harmful substance absorption capabilities to ensure that small children, who are especially vulnerable to air pollution, always remain healthy. Thanks to ECOCARAT's impressive maintenance properties, we were even able to place it in high, hard-to-reach places, because it does not need to be replaced; as such, it is perfect for nursery schools. Warmth of the earth gives children energy.

ECO-303/NN2

MUSEUM

Sumio Goto Art Museum

Customer: Sumio Goto
(Kamifurano, Pref. Hokkaido)

ECOCARAT is used to preserve an art object.

Avoiding sunlight, controlling air condition is very important to preserve paintings in museums. ECOCARAT can control humidity to prevent mold and propagation of bacteria and preserves paintings well.

※Voice of the customer is an impression by the monitor. There is an individual variation in how to feel it.

FUNCTIONS OF ECOCARAT

"ECOCARAT" is the functional Interior Ceramics made in JAPAN.

HARMFUL SUBSTANCE ADSORPTION

ODOR REDUCTION

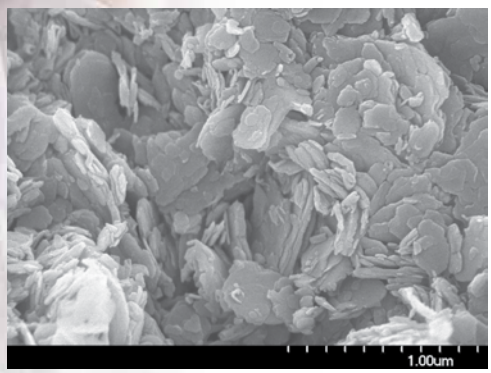
HUMIDITY CONTROL

"Allophane", this is a secret of ECOCARAT.

What is the different factor between conventional tiles and ECOCARAT?

ECOCARAT consists of a special mineral "Allophane". It's natural clayey mineral contained in the volcanic ashes which has innumerable micro-pores. Also, allophane has an ionic exchange phenomenon.
Therefore, ECOCARAT has power to reduce VOC※ and absorb the extra moisture.

※VOC = Volatile Organic Compounds



ECOCARAT taken by electron microscope

■ **Technical Specifications of ECOCARAT**

Property	LIXIL measure	unit	Method of Testing
Water absorption	23-25	%	ISO 10545-3
Mohs hardness	3.5	—	Mohs hardness
Flexural strength	5-7	N/mm^2	ISO 10545-4
Breaking strength	100-140	N	ISO 10545-4
Density	1.7	g/cm^3	LIXIL original method
Frost resistance	Not applicable	—	ISO 10545-12
Chemical resistance	No damage	—	LIXIL original method
Thermal expansion	$<5.0\times10^{-6}$	/ ℃	Thermal expansion meter
Amount of moisture absorbed and released	300<	g/m^2	LIXIL original method

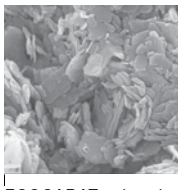
HARMFUL SUBSTANCE ADSORPTION

We all want to raise our children in a safe indoor environment.

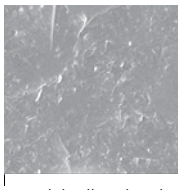
ECOCARAT Reduces VOCs and cleans the air.

ECOCARAT has innumerable micro-pores which has power to reduce VOC by chemical (ionic) adsorption.

Chemical absorption is very strong. Therefore, absorbed chemical substance is not released. If there is possibility that it is released the amount of it, which is released, is very little. Therefore, increasing the concentration level of VOC in the room suddenly will not happen.



ECOCARAT taken by electron microscope



porcelain tile taken by electron microscope

Adsorbs formaldehyde and toluene.

Adsorbs and reduces VOC (Volatile Organic Compounds) such as formaldehyde and toluene which are emitted by building materials and furniture, negatively affecting the body.

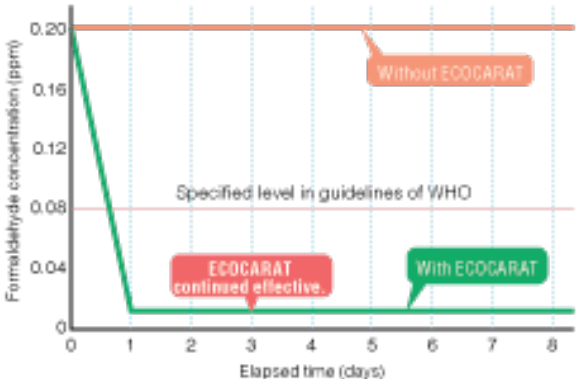
Customer's voice

Say Goodbye to Sick Building Syndrome!
(Mr. S)

A year after moving into our new house, symptoms of SICK BUILDING SYNDROME appeared. Then I decided to install ECOCARAT which I had heard it absorbs harmful substance. And three months later the symptom have been reduced and we no longer get rash on or faces, so that we are not worried about going out in public anymore. We can also sleep much better and we are no longer stressed out so much.

※It is an impression by the monitor. There is an individual variation in how to feel it.

■Capability to reduce formaldehyde



※1. Formaldehyde concentration 0.2 is 2.5 times higher than the guideline specified by WHO (World Health Organization).
0.2 is the concentration level which causes stimulus to human's eye.
※2. Results are based on LIXIL experiments. Results may vary depending on building materials, position of furniture, weather conditions and ventilation conditions.

A First in Japan

ECOCARAT has acquired "Formaldehyde Reduction Building Material Accreditation"

ECOCARAT is the first domestic building material to gain "Formaldehyde Reduction Building Material Accreditation" from the Building Center of Japan Foundation. This accreditation is only given to materials which meet strict standards of formaldehyde reduction and keep reduction capabilities even with changes in the internal environment such as temperature and humidity.

BCJ-AIBT

認定番号	BCJ-AIBT-8
認定基準名・番号	室内空気中の揮発性有機化合物汚染低減建材認定基準 BCJ-CS-5-2012
認定有効期限	2017年7月17日

＊Please refer to p.47 for details.

ODOR REDUCTION

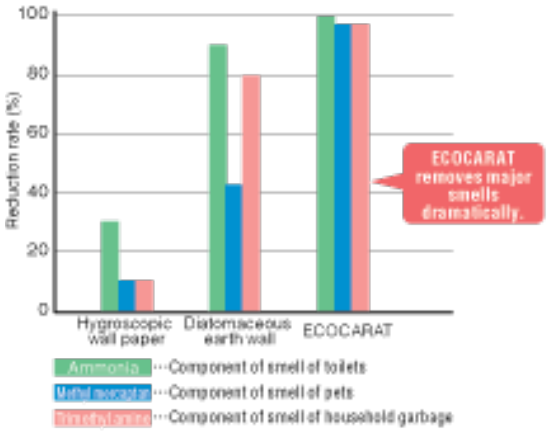
We always notice the house odor of other peoples' houses. Is your house odor free?

Reduces unpleasant everyday odors. A fresh environment for both family and visitors.

Better at deodrization performance than diatomaceous earth walls.

The smells of toilets, cigarettes, pets, and household garbage are among the most offensive smells that occur in our everyday life. ECOCARAT reduces these smells by adsorbing ammonia, and other substances which are the causes. ECOCARAT has better deodrization performance than diatomaceous earth wall.

■Comparison of rates of reduction of three major foul smells

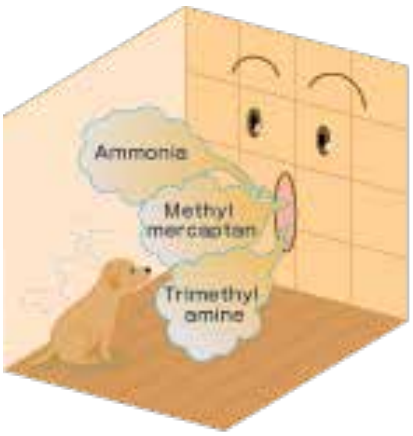


※ Results are based on LIXIL experiments. Results may vary depending on building materials, position of furniture, weather conditions and ventilation conditions.

Recommended to people who have given up on owning a pet due to unpleasant pet odor.

As it absorbs odors associated with pets, air of interior spaces are kept fresh. This is a wall material that will bring a smile to the faces of those who have been thinking "I would love to have a pet, but I just couldn't handle the smell…"

It absorbs unpleasant odors leaving your rooms smelling fresh!



Customer's voice

The pet odor has gone and we can now welcome visitors without worrying about the smell.

(Mrs. T)

We installed ECOCARAT to walls of the pet space when we rebuild the house, and it is amazing now the pet odor has almost completely disappeared. We can now invite our guests without worries and hesitations.

※It is an impression by the monitor. There is an individual variation in how to feel it.

HUMIDITY CONTROL

Damp rainy days and troublesome condensation in winter.

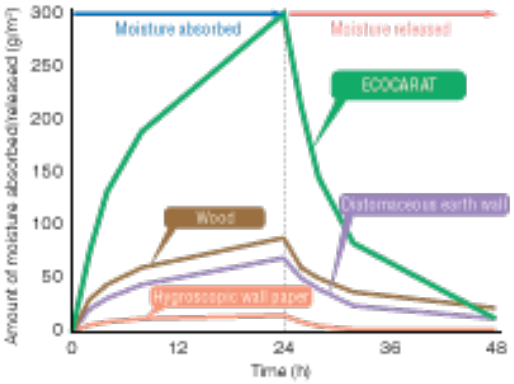
Absorbs humidity and controls condensation.

4 to 5 times the humidity control capability of diatomaceous earth wall.

Humidity level in a room changes depending on the temperature and the climate during the course of a day. ECOCARAT absorbs moisture when the humidity level is high, and conversely, it releases the moisture into the air when the humidity level is low. Thus it prevents excessive dampness and dew condensation, and it contributes to create an environment that is gentle for your throat and skin while reducing excessive desiccation.

※ECOCARAT is a collaborative research product of the Ministry of International Trade and Industry National Industry Research Institute of Nagoya (Currently, National Institute of Advanced Industrial Science and Technology Chubu Center) (Patent no. 2948133 and others)

■Comparison of moisture absorbing & releasing performance

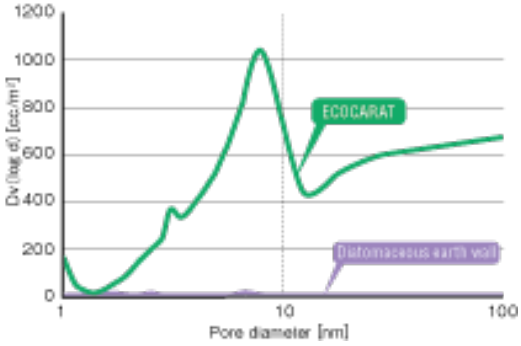


※ Results are based on LIXIL experiments. Results may vary depending on building materials, position of furniture, weather conditions and ventila-tion conditions.

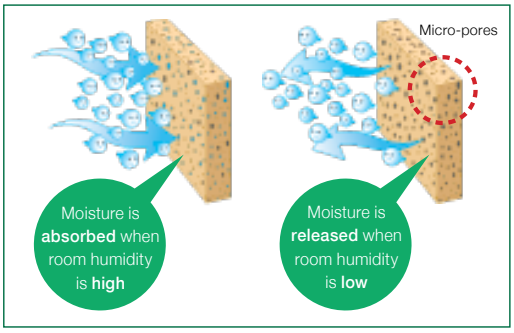
What is the secret of its excellent humidity control capabilities?

The secret is in its micro pores, only a millionth of a millimeter across, which control humidity. As ECOCARAT has lots of pores than diatomaceous earth, it can absorb and release much larger quantities of moisture.

■Comparison of no. pores /m² Pore diameter [nm]

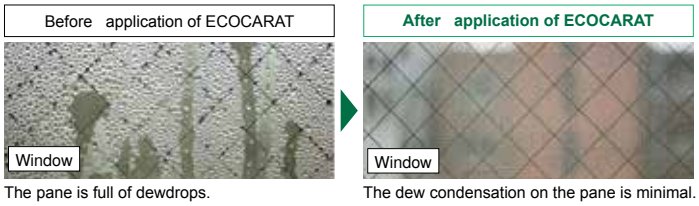


■Mechanism of moisture absorption and emission in ECOCARAT



Dew condensation of windows reduced to less than 1/15 (comparison with ECOCARAT).

The higher humidity becomes, the more moisture ECOCARAT absorbs to control the rise in interior relative humidity and control the formation of dew condensation.



The pane is full of dewdrops.

The dew condensation on the pane is minimal.

※Depending on climatic and other conditions there are cases where control of condensation by use of ECOCARAT alone may be difficult.

Customer's voice

I no longer have to wipe dew condensation off my windows every morning. (Ms. D)

Wiping up the dew condensation, which would form in such amounts that it ran over the bottom of the window frames, was part of my daily routine every morning. But, after I remodeled and installed ECOCARAT on the walls of the room, the condensation has virtually disappeared.

※It is an impression by the monitor. There is an individual variation in how to feel it.

HUMIDITY CONTROL

We all want to keep interior spaces clean for our health.

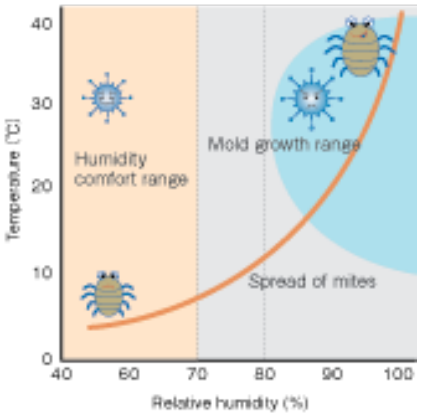
It inhibits the spread of mold and mites, which can cause allergies.

Prevents high levels of humidity liked by mold and mites.

Mold and mites spread easiest in environments at over 80% humidity. As ECOCARAT functions to control humidity, extremes of humidity are rarer and you can expect a reduction in the spread of mold and mites.

ECOCARAT makes this big difference in mold propagation on rice cake.
※ Results are based on LIXIL experiments. Results may vary depending on room usage, weather conditions and ventilation conditions.
※ The effect may vary according to conditions including Building materials used, Furniture installed, Weather and Ventilation conditions, etc.

■Spread of mold/mites and humidity



ECOCARAT will absorb mold-causing condensation with ease.

ECOCARAT is suitable for use in highly humid places since it is made of material which hardly gets moldy.

ECOCARAT is a ceramic material manufactured by firing natural raw materials at a high temperature Since ECOCARAT hardly gathers mold, it can most effectively be used in highly humid places, such as lavatories.

■Resistance to mold

	Resistance to mold*1
ECOCARAT	5
Wood	3
Vinyl Wall paper	1

*1 5: Excellent, 3: Intermediate, 1: Poor
* Tested by LIXIL based on the KJK method.
* Test results may vary according to ventilation condition of use, etc,

■Test

Spread equally 4 kinds of mold spores on testing specify. Cultivate 4 weeks at 25 ±2°C degrees centigrade, 99% relative humidity. Monitored by eye and micro scope.

A First in Japan

A fully registered and certified Humidity Control Building Material!

ECOCARAT has been certified as Japan's first Humidity Control Building Material by the Japan Construction Material and Housing Equipment Industries Federation. The Federation evaluates and certifies Humidity Control Building Materials which meet predefined standards of humidity control capability. ECOCARAT has gained double certification as a Formaldehyde Reducing Building Material.

調 湿 建 材
(社) 日本建材・住宅設備産業協会

CERTIFICATION

Japan

Denmark

INAX
Extracts taken from the research report of Danish Technological Institute, Indoor Environment for INAX Ecocarat:
Determination of the Ability of ECOCARATs to Reduce the Odour and Formaldehyde Concentration in the Indoor Climate
Testing of ECOCARAT Interior Ceramics
DANISH TECHNOLOGICAL INSTITUTE

Korea

PATENT

Japan

U.S.A.

Taiwan

Korea

China

APPLICABLE IN VARIOUS DRY INTERIOR SPACES

RECOMMENDATION Suitable for installation in locations not exposed to water.

Living room

Bedroom

Hallway

CAUTION Please do not install in locations exposed to water.

Outdoors

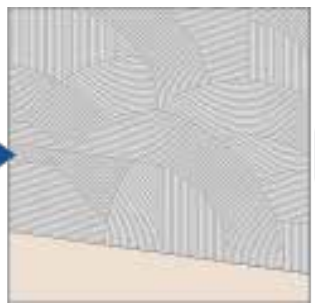
Bathroom (Walls exposed to water)

Flooring

APPLICATION METHOD (APPLICATION WITH ADHESIVE)

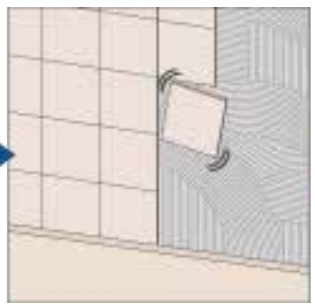
1.Checking the bed

First, check the bed surface for flatness. If it is not flat, repair with putty or other suitable material (when the bed is gypsum board). Gypsum board (t≥9.5mm) or calcium silicate board is recommended for the bed.



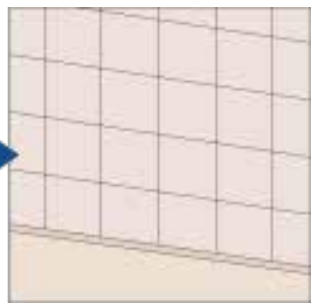
2.Applying the adhesive

Apply the specified adhesive (SUPER-ECONUR) to the bed in a combed pattern.



3.Applying ECOCARAT

Press the ECOCARAT uniformly into the bed. ECOCARAT does not require joints. (When the bed is mortar, keep a 0.5 to 1mm joint).



4.Inspecting the finish

Check the condition of the finish for stains, chips, etc. Stains from hands can be removed with an eraser. See page 51 for maintenance methods.

MAINTENANCE OF ECOCARAT

Routine maintenance

Basic maintenance of ECOCARAT involves wiping the surface with a dry or well-wringed clean cloth. Do not use water to clean the surface. Frequency of maintenance is the same as for ceramic tiles.

Stains from handling the surface, pencil marks and other small stains can be removed by rubbing with a plastic eraser.

Compared with wallpaper and wood, ECOCARAT is less affected by nicotine staining and stains are not as conspicuous. It is recommended, however, to wipe down the surface with a clean well-wringed cloth depending on the frequency of smoking.

Stains requiring caution

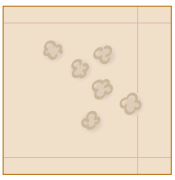
Certain stains may prove difficult to remove so caution is advised regarding the items shown on the right.

Lipstick

Water-based and oil-based pens

Hair dyes

Mud



Others

- **Crayon**
- **Resins**
- **Inks**
- **Paints**

Stain Removal Methods

Coffee / Tea

Ketchup / Mayonnaise / Soy Sauce / Sauce

① Remove residual ketchup etc. using a moistened cotton swab or similar.
② Dab on chlorine-based bleach (undiluted) with a cotton swab or similar.
③ Leave the stain for approximately 24 hours and it will fade.

※If the stain remains, repeat steps ① through ③.

Urine spray

① Allow urine to dry and then dab the stained area with a cotton swab soaked in chlorine-based bleach (undiluted).
② Leave the stain for approximately 24 hours and it will fade.

※If the stain remains, repeat steps ① and ②.

Toothpaste

① Remove as much of the residual toothpaste as possible using a plastic spatula or toothbrush.
② Rub of any residue with a plastic eraser.
③ Wipe the surface with a well-wringed clean cloth or a moistened cotton swab or similar.
④ Repeat steps ② and ③ until the stain has been removed.

Toilet detergent

① Dab on chlorine-based bleach (undiluted) using a cotton swab or similar.
② Leave the stain for approximately 24 hours and it will fade.

※If the stain remains, repeat steps ① and ②.

⚠ CAUTION

- If nicotine stains are left until they turn yellow and stick to the surface, they become more difficult to remove. Regular cleaning is recommended.
- Heavy stains left for a long time may not be removed by the methods detailed above.
- Depending on the degree of staining, it may not be possible to remove the stain completely and conversely the stain may actually spread. Please check this first using a section that is inconspicuous.
- Please read the precautions of use before using detergents or bleach.

Items not to be used for cleaning
※Use may result in worsening of stains and scratches
Dirty cloths
Sand erasers
Hard kitchen sponges
Metal scourers

If ECOCARAT is scratched

Small scratches, chips and cracks can be rendered less visible using CARAT CAULK, the caulking and repairing agent designed for exclusive use with ECOCARAT, or with a commercially available touch-up pen. If the damage is particularly noticeable, please contact your local tradesman regarding tile replacement.

Caulking & repairing agent

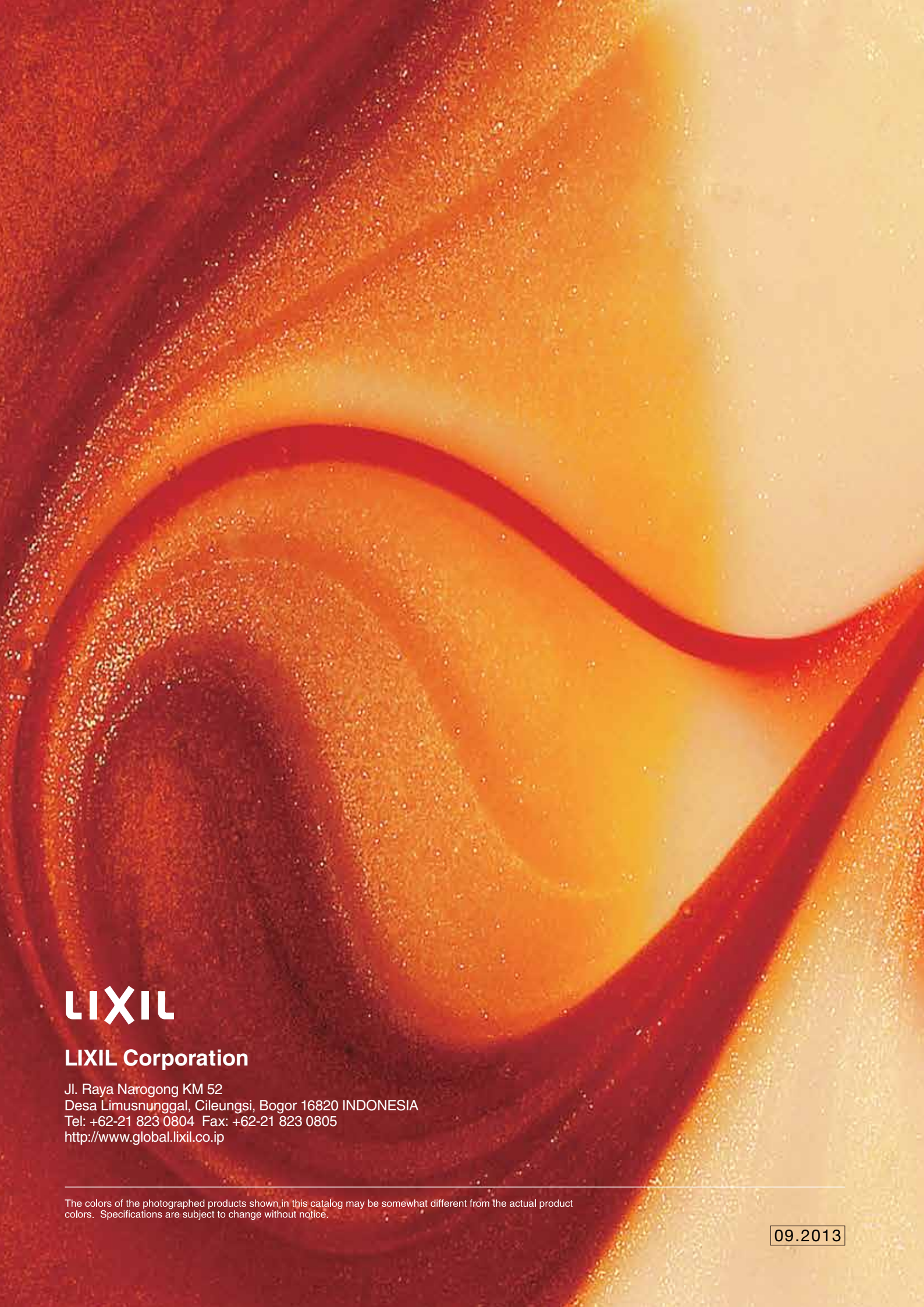
CARAT CAULK

ECC/A1…SLA3

Caulking agent for exclusive use with ECOCARAT. This is a water-based, solvent free health-conscious product.
※One tube (250g) is usually sufficient to caulk 7 to 8m.

CAUTION

- ECOCARAT is a porous ceramic material and therefore absorbs water easily. Avoid use in places which are exposed to water or where water is used frequently (shower room, kitchen back walls, etc.) or where there is a risk of staining by dirty water during cleaning (commercial kitchen, window back of public lavatory, etc.). (Use in washrooms and lavatories in residential houses is possible)
- ECOCARAT is a ceramic material, thus depending on the condition of the bed (unevenness and so on), there may be gaps of a few millimeters between pieces.
- When installing ECOCARAT on an RC bed, gaps of 0.5 to 1mm are required so the finished product and photographs showing installation may vary slightly.
- On wall surfaces that have not been sufficiently insulated in reinforced concrete buildings with limited air circulation, and where interior environments are subject to continued humidification by burning gas stoves and so on, ECOCARAT alone may not be sufficient to fully control condensation on reinforced concrete walls. Please consider utilizing alternative methods in combination with ECOCARAT.



LIXIL Corporation

Jl. Raya Narogong KM 52
Desa Limusnunggal, Cileungsi, Bogor 16820 INDONESIA
Tel: +62-21 823 0804 Fax: +62-21 823 0805
http://www.global.lixil.co.ip

The colors of the photographed products shown in this catalog may be somewhat different from the actual product colors. Specifications are subject to change without notice.

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